

## HWC MACT STANDARDS

### Existing Sources

Pollutant	Incinerators	Cement Kilns	Lightweight Aggregate Kilns	Solid Fuel-Fired Boilers	Liquid Fuel-Fired Boilers	Hydrochloric Acid Furnaces
Dioxin/Furans	0.20 ng TEQ/dscm or 0.40 and APCE inlet T <400°F (or wet APCE)	0.20 ng TEQ/dscm or 0.40 and APCE inlet T <400°F	0.20 ng TEQ/dscm or rapid quench at kiln exit to <400°F	CO/THC and DRE as surrogates	0.40 for sources with dry APCE; CO/THC and DRE as surrogates for others	CO/THC and DRE as surrogates
Mercury	130 ug/dscm	HW feed 3.0 ppmw and 120 ug/dscm MTEC or 120 ug/dscm total emissions	120 ug/dscm HW MTEC or 120 ug/dscm total emissions	11 ug/dscm	4.2E-5 lb/MMBtu <sup>4,6</sup> or 19 ug/dscm <sup>6,8</sup>	TCI as surrogate
Particulate Matter	0.013 gr/dscf <sup>1</sup>	0.028 gr/dscf and opacity <20% <sup>3</sup>	0.025 gr/dscf	0.030 gr/dscf <sup>1</sup>	0.035 gr/dscf <sup>1</sup>	TCI as surrogate
Semivolatile Metals (Pb + Cd)	230 ug/dscm	7.6E-4 lb/MMBtu <sup>4</sup> and 330 ug/dscm <sup>5</sup>	3.0E-4 lb/MMBtu <sup>4</sup> and 250 ug/dscm <sup>5</sup>	180 ug/dscm	8.2E-5 lb/MMBtu <sup>4,6</sup> or 150 ug/dscm <sup>6,8</sup>	TCI as surrogate
Low Volatile Metals (As + Be + Cr)	92 ug/dscm	2.1E-5 lb/MMBtu <sup>4</sup> and 56 ug/dscm <sup>5</sup>	9.5E-5 lb/MMBtu <sup>4</sup> and 110 ug/dscm <sup>5</sup>	380 ug/dscm	1.26E-4 lb/MMBtu <sup>4,7</sup> or 370 ug/dscm <sup>7,8</sup>	TCI as surrogate
Total Chlorine (TCI) (HCl + Cl <sub>2</sub> )	32 ppmv <sup>2</sup>	120 ppmv <sup>2</sup>	600 ppmv <sup>2</sup>	440 ppmv <sup>2</sup>	5.08E-2 lb/MMBtu <sup>2,4</sup> or 31 ppmv <sup>2,8</sup>	150 ppmv or 99.923% SRE
CO or THC	100 ppmv CO or 10 ppmv HC	varies depending on kiln	100 ppmv CO or 20 ppmv HC	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 10 ppmv HC
DRE	same as RCRA					

#### Notes:

1. May comply with alternative PM standard.
2. May comply with risk based emission limit.
3. Opacity standard does not apply to a source equipped with a bag leak detection system or a particulate matter detection system.
4. Expressed as mass of pollutant contributed by hazardous waste per million BTU contributed by hazardous waste.
5. Must comply with both the HWTE limit and the emission concentration standard.
6. Standard is based on normal emissions data and is expressed as an annual average emission limit.
7. LVM standard is for chromium only.
8. Emission concentration based standards apply to sources processing hazardous waste <10,000 Btu/lb; thermal emission standards apply to sources processing hazardous waste >10,000 Btu/lb.

## HWC MACT STANDARDS

### New Sources

Pollutant	Incinerators	Cement Kilns	Lightweight Aggregate Kilns	Solid Fuel-Fired Boilers	Liquid Fuel-Fired Boilers	Hydrochloric Acid Furnaces
Dioxin/Furans	0.11 ng TEQ/dscm for dry APCE and WHBs; 0.2 for all others	0.20 ng TEQ/dscm or 0.40 and <400°F at inlet to APCE	0.20 ng TEQ/dscm or rapid quench at kiln exit to <400°F	CO/THC and DRE as surrogates	0.40 for sources with dry APCE; CO/THC and DRE as surrogates for others	CO/THC and DRE as surrogates
Mercury	8.1 ug/dscm	HW feed 1.9 ppmw and 120 ug/dscm MTEC or 120 ug/dscm total emissions	120 ug/dscm HW MTEC or 120 ug/dscm total emissions	11 ug/dscm	1.2E-6 lb/MMBtu <sup>4,6</sup> or 6.8 ug/dscm <sup>6,8</sup>	TCI as surrogate
Particulate Matter	0.0015 gr/dscf <sup>1</sup>	0.0023 gr/dscf and opacity <20% <sup>3</sup>	0.0098 gr/dscf	0.015 gr/dscf <sup>1</sup>	0.0087 gr/dscf <sup>1</sup>	TCI as surrogate
Semivolatile Metals (Pb + Cd)	10 ug/dscm	6.2E-5 lb/MMBtu <sup>4</sup> and 180 ug/dscm <sup>5</sup>	3.7E-5 lb/MMBtu <sup>4</sup> and 43 ug/dscm <sup>5</sup>	180 ug/dscm	6.2E-6 lb/MMBtu <sup>4,6</sup> or 78 ug/dscm <sup>6,8</sup>	TCI as surrogate
Low Volatile Metals (As + Be + Cr)	23 ug/dscm	1.5E-5 lb/MMBtu <sup>4</sup> and 54 ug/dscm <sup>5</sup>	3.3E-5 lb/MMBtu <sup>4</sup> and 110 ug/dscm <sup>5</sup>	190 ug/dscm	1.41E-5 lb/MMBtu <sup>4,7</sup> or 12 ug/dscm <sup>7,8</sup>	TCI as surrogate
Total Chlorine (TCI) (HCl + Cl <sub>2</sub> )	21 ppmv <sup>2</sup>	86 ppmv <sup>2</sup>	600 ppmv <sup>2</sup>	73 ppmv <sup>2</sup>	5.08E-2 lb/MMBtu <sup>2,4</sup> or 31 ppmv <sup>2,8</sup>	25 ppmv or 99.987% SRE
CO or THC	100 ppmv CO or 10 ppmv HC	varies depending on kiln	100 ppmv CO or 20 ppmv HC	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 10 ppmv HC	100 ppmv CO or 10 ppmv HC
DRE	same as RCRA					

#### Notes:

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